

IN THE SPECIFICATION

Please replace lines 3-19 on page 24 of the specification with the following amended paragraph:

Table 2 below compares the actions of two synthetic VEGF peptide analogs of the present invention, VA01 and VA02, with that of recombinant VEGF. For MAP kinase, bovine aorta endothelial (BAE) cells were stimulated with 50 ng/mL of VEGF, VA01 or VA02 for 30 or 60 minutes. Cell lysate was analysed by Western blotting using monoclonal anti-phospho-44/42 MAP kinase antibody (Thr202 and Tyr204) and increased phosphorylization of ERK-1 and ERK-2 relative to controls was detected following stimulation with VEGF, VA01 or VA02. For growth, an increase in relative cell number of BAE cells was found following stimulation with VEGF, VA01 or VA02 whereas in A7R5, a smooth muscle cell line, no growth stimulation was found, indicating specificity in the action of the analogs.

Table 2

	VEGF	VA01	VA02
Biochemical			
Interaction with heparin	Yes	Yes	Yes
MAP kinase phosphorylation	Yes	Yes	Yes
Growth stimulation			
Endothelial cells	Yes	Yes	Yes
Smooth muscle cells	No	No	No
Cellular changes			
Tube formation in collagen gels (in vitro model of angiogenesis)	Yes	Yes	Yes

BMP Synthetic Analogs

In another particular aspect, the invention provides a synthetic BMP peptide analog. The synthetic bone morphogenic protein analogs include embodiments wherein the X region is the amino acid sequence LYVDFSDVGWNDW (SEQ ID NO:15), AISMLYLDENEKVVL (SEQ ID NO:16), ISMLYLDENEKVVLKNY (SEQ ID NO:17), EKVVVLKNYQDMVVEG (SEQ ID NO:18), LVVKENEDLYLMSIAC (SEQ ID NO:19), AFYCHGECPFPLADHL (SEQ ID NO:20), or PFPLADHLNSTNHAIVQTLVNSV (SEQ ID NO:21).